

Application No. NOT YET ASSIGNED  
Preliminary Amendment

Customer No. 01933

**Amendments to the Drawings:**

Figs. 3 and 4 have been amended to add reference character "P" designating the arrow, in accordance with the description in the specification at page 3, lines 28 and 29.

Attachments: Replacement Sheet  
Annotated Sheet Showing Changes

**Amendments to the Specification:**

Page 1, please insert the following as the first paragraph:

This application is a U.S. National Phase Application  
under 35 USC 371 of International Application  
PCT/SE2003/001203 filed July 11, 2003.

Please amend the paragraph at page 2, lines 4-8 as follows:

This object is achieved in accordance with the  
invention [[,]] by ~~means of~~ a helical screw rotor compressor  
~~of the kind defined in the preamble of Claim 1, wherein in~~  
which the rotor body of at least one of the two rotors of  
said compressor is modified at said outlet end. This  
modification consists in bevelling or chamfering respective  
trailing flank surfaces of the rotor lobes at the end  
surface at which the outlet is situated.

Please amend the paragraph at page 3, lines 15-18 as follows:

The male rotor in Fig. 1 has a shaft 21 around which the rotor body 22 is disposed. The rotor body 22 has a first end surface ~~3~~ 4, which lies in the close proximity to the first end wall 103, and a second end surface ~~28~~ 3, which lies in close proximity to the second end wall 104. The lobes ~~107~~ 106 of the rotor body ~~23~~ 22 have crowns ~~15~~ 5, shown linearly in Fig. 1.

Please amend the paragraph at page 3, lines 19-22 as follows:

The female rotor 102 in Fig. 1 has a shaft 26 around which the rotor body 23 is disposed. The rotor body 23 includes a first end surface 27, which lies in close proximity to the ~~second~~ first end wall 103, and a second end surface 28, which lies in close proximity to the second end wall 104. The lobes 107 of the rotor body 23 have crowns 15, shown linearly in Fig. 1.

Please amend the paragraph at page 3, lines 23-31 as follows:

Figure 3 is a sectional view of a lobe 106 on the male rotor 101, taken at a right angle ~~angles~~ to the rotor shaft 21 in the ~~midway~~ middle portion of the rotor body ~~as~~ and seen from the outlet end of the compressor. The sectional area is referenced 3'. The lobe 106 has a top or crown 5, a leading first flank surface or side surface 1, which extends from the crown 5 to a foot 7, and a following or trailing second flank surface or side surface 2, which extends from said crown 5 to a second foot 8. The lobe 106 moves in the direction of arrow P as the rotor rotates. Beyond the section 3' the lobe 5 extends helically along the rotor body ~~23~~ 22. The leading first flank surface 1 therewith defines an obtuse angle with the section plane 3' and the trailing second flank surface 2 defines an acute angle with said plane 3'.

Please amend the paragraph at page 3, line 32 to page 4, line 12 as follows:

Figure 4 shows an end surface 3 at the compressor outlet end of the rotor lobe 106. This surface 3 lies in a plane parallel with the plane 3' in Fig. 3 and is viewed in the same direction as the section plane 3'. The lobes 106 of the rotor body ~~23~~ 22 differ at the end plane from the shape and extension of the trailing flank surface or side surface. The flank surface 2 shown with broken lines or dashes corresponds to the flank surface 2 (shown with a full line) in Fig. 3. The trailing flank surface of the lobe 106 in Fig. 4 is referenced 2a. The hatched area 14 of ~~said Figure~~ Fig. 4 shows the difference between the extensions of the trailing second flank surface in the end surface 3 in relation to a plane 3' in the rotor body ~~23~~ 22 at a distance from the end plane. This hatched area corresponds to the apex of the acute angle defined between the end surface 3 and the trailing second flank surface 2. The area 14 situated between the flank surface line 2a of the end surface 3 and the flank surface line 2 of the lobe 106 may

be flat, rounded or have some other shape, or may be parallel with the rotor axis. The important fact is that the string of material located in the apex of the acute angle between the end surface 3 and the trailing second flank surface 2 of the lobe 106 in the case of known rotors is either removed or the rotor is produced in the absence of such a string.